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STEM CELL FACTOR COMPOSITIONS
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See amdt 11/13/03

This is a continuation-in-part application of
Serial No. 589,701, filed October 1, 1990 which is a
5 continuation-in-part application of Ser. No. 573,616
filed August 24, 1990 which is a continuation-in-part
application of Ser. No. 537,198 filed June 11, 1990
which is a continuation-in-part application of Ser. No.
422,383 filed October 16, 1989 hereby incorporated by
10 reference.

The present invention relates in general to
novel factors which stimulate primitive progenitor cells
including early hematopoietic progenitor cells, and to
DNA sequences encoding such factors. In particular, the
15 invention relates to these novel factors, to fragments
and polypeptide analogs thereof and to DNA sequences
encoding the same.

Background of the Invention

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The human blood-forming (hematopoietic) system
is comprised of a variety of white blood cells
(including neutrophils, macrophages, basophils, mast
cells, eosinophils, T and B cells), red blood cells
25 (erythrocytes) and clot-forming cells (megakaryocytes,
platelets),

It is believed that small amounts of certain
hematopoietic growth factors account for the
differentiation of a small number of "stem cells" into a
30 variety of blood cell progenitors for the tremendous
proliferation of those cells, and for the ultimate
differentiation of mature blood cells from those
lines. The hematopoietic regenerative system functions
well under normal conditions. However, when stressed by
35 chemotherapy, radiation, or natural myelodysplastic
disorders, a resulting period during which patients are